

REMARKS

After entry of this Amendment, claims 1 and 4-22 will be all the claims pending in the application. Claims 1 and 10-11 have been amended. Claims 17-22 are new. Claim 2 has been canceled. Support for the amendment to claim 1 may be found in, e.g., original claim 2. Support for new claims 17-22 may be found in the specification, e.g., at page 12, lines 8-12, and original claims 1, 4 and 8-11.

No new matter has been added.

Entry of the above amendments is respectfully requested.

I. Preliminary Matters

Applicants thank the Examiner for withdrawing the rejection of claims 1, 2, 4, 5, 7, 8, 10 and 12 under 35 U.S.C. § 102(e) and 35 U.S.C. § 103(a) over Mehler et al. (U.S. Patent Publication 2004/0058214), the rejection of claims 1, 4-8 and 12-15 under 35 U.S.C. § 102(e) and 35 U.S.C. § 103(a) over Thielen et al. (U.S. Patent No. 6,331,586), and the rejection of claims 6, 9 and 11 under 35 U.S.C. § 103(a) over Mehler et al. in view of Noguchi et al. (U.S. Patent Publication 2003/0191228), in view of the Amendment filed February 2, 2009

II. Claim Objections

On page 3 of the Office Action, claims 1 and 10 are objected to because of informalities.

In response, and while not agreeing that the objection is correct, claims 1 and 10 have been amended in accordance to the suggestions proffered on page 3 of the Office Action, in order to advance prosecution.

Withdrawal of the objection is respectfully requested.

III. Claim Rejections - 35 U.S.C. § 112

On page 3 of the Office Action, claim 11 is rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite.

In response, claim 11 has been amended to correct the antecedent basis.

Withdrawal of the rejection is respectfully requested.

IV. Claim Rejections - 35 U.S.C. § 103

A. On page 4 of the Office Action, claims 1, 2, 4-6, 8, 10 and 12-16 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Takagi et al., as evidenced by Product Data Sheet of Ketjenblack® EC-600JD.

Initially, Applicants submit that claim 2 has been canceled, rendering the rejection moot for this claim.

Next, in response, and while not agreeing that the rejection is correct, claim 17 has been added to recite, *inter alia*, a ratio (P_a/P_b) of 0.8 or less where P_a is the number-average particle size of the dispersed phase of the component (A) and P_b is the number-average particle size or the number-average fiber diameter of the component (B). Applicants submit that the present invention is characterized by controlling the dispersion of the electroconductive material in the continuous phase (sea) by using a multi-component polymer-type resin binder having a micro-phase separation (island-in-sea) structure and controlling the particle size of the dispersed phase (island). See, page 5, line 34 to page 6, line 1 and page 9, lines 6-9; and page 11, line 21 to 29 of the specification. Since the number-average particle size or number-average fiber diameter of the electroconductive material is larger than the number-average particle size of the dispersed

phase (island), which occupies a smaller portion of the thermoplastic resin composition, the electroconductive material basically is inevitably present in the continuous phase (sea), which occupies a larger portion of the thermoplastic resin composition, and basically is not in the dispersed phase (island), which occupies a smaller portion of the thermoplastic resin composition.

On the other hand, in the thermoplastic resin composition of Takagi et al., one electroconductive material (component C) is present in the dispersed phase (island) which occupies a smaller portion of the thermoplastic resin composition, and another electroconductive material (component D) is present in the continuous phase (sea) which occupies a larger portion of the thermoplastic resin composition. Accordingly, both of the continuous phase (sea) and the dispersed phase (island) of Takagi et al. contain electroconductive materials. Applicants submit that the subject matter of present claim 1 is different from Takagi et al. in that basically no electroconductive material is present in the dispersed phase (island) which occupies a smaller portion of the thermoplastic resin composition in the present invention.

Further, claim 1 has been amended to incorporate the features of claim 2. Applicants submit that Takagi et al. teach that the electroconductive material, i.e., both component C and component D, is 0.1 to 15 parts by weight to 100 parts by weight of the island-and-sea resin composition at paragraph [0053]. Applicants respectfully submit that Takagi et al. thus teach that the electroconductive resin composition comprises about 0.2 to about 23 weight% of the electroconductive component (component C and component D) and about 77 to about 99.8 weight% of the island-and-sea resin composition (component A and component B) based on the

total amount (sum of components A+B+C+D).¹ On the other hand, the electroconductive resin composition of present claim 1 comprises 60 to 98 mass % of the electroconductive material. Therefore, Applicants submit that the subject matter of present claim 1 is different from Takagi et al.

Further, Applicants submit that the Product Data Sheet of Ketjenblack® EC-600JD do not make up for the deficiencies of Takagi et al. as discussed immediately above, and therefore a *prima facie* case of obviousness has not been made because the cited documents do not teach or suggest each and every limitation of present claim 1.

Accordingly, claims 4-6, 8, 10 and 12-16 are at least patentable over the cited documents by virtue of their dependency from claim 1.

Withdrawal of the rejection is respectfully requested.

B. On page 7 of the Office Action, claim 7 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Takagi et al., as evidenced by Product Data Sheet of Ketjenblack® EC-600JD as applied to the above claims, and further in view of Morikoshi et al. (U.S. Publication 2001/0016531 A1).

Applicants submit that Morikoshi et al. do not make up for the deficiencies of Takagi et al. and the Product Data Sheet of Ketjenblack® EC-600JD as discussed above in section IV.A., and therefore a *prima facie* case of obviousness has not been made because the cited documents

¹ Applicants respectfully submit that the calculation of the weight% of the electroconductive component of Takagi et al. at the sentence bridging pages 5 and 6 in the Office Action is incorrect, and that the correct calculation should be $[(15 \times 2) / (100 + (15 \times 2))] \times 100 = 23.1\%$.

do not teach or suggest each and every limitation of present claim 1. Accordingly, claim 7 is at least patentable over the cited documents by virtue of its dependency from claim 1.

Withdrawal of the rejection is respectfully requested.

C. On page 9 of the Office Action, claims 9 and 11 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Takagi et al., as evidenced by Product Data Sheet of Ketjenblack® EC-600JD as applied to the above claims, and further in view of Noguchi et al. (U.S. Pub. 2003/0191228 A1).

Applicants submit that Noguchi et al. do not make up for the deficiencies of Takagi et al. and the Product Data Sheet of Ketjenblack® EC-600JD as discussed above in section IV.A., and therefore a *prima facie* case of obviousness has not been made because the cited documents do not teach or suggest each and every limitation of present claim 1. Accordingly, claims 9 and 11 are at least patentable over the cited documents by virtue of their dependency from claim 1.

Withdrawal of the rejection is respectfully requested.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.


Respectfully submitted,

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